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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS
ROBERT "BOB" BURNS, Chairman
BOYD W. DUNN
SANDRA D. KENNEDY
JUSTIN OLSON
LEA MÁRQUEZ PETERSON

IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR A HEARING TO DETERMINE THE FAIR VALUE OF THE UTILITY VALUE OF THE COMPANY FOR RATEMAKING PURPOSES, TO FIX A JUST AND REASONABLE RATE OF RETURN THEREON, AND TO APPROVE RATE SCHEDULES DESIGNED TO DEVELOP SUCH RETURN.	Docket No. E-01345A-19-0236 **SOUTHWEST ENERGY EFFICIENCY PROJECT'S AND WESTERN RESOURCE ADVOCATES' NOTICE OF FILING SURREBUTTAL TESTIMONY OF BRENDON BAATZ**

The Southwest Energy Efficiency Project ("SWEEP") and Western Resource Advocates ("WRA") hereby submit the redacted Surrebuttal Testimony and exhibits of Brendon Baatz in the above-captioned docket.

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The highly confidential version of Mr. Baatz' Surrebuttal Testimony is being provided under seal to the Commission and to Arizona Public Service ("APS"). Parties who have entered into the Protective Agreement will be able to view the confidential version of Mr. Baatz' testimony and exhibits by accessing the APS Rate Case website.

RESPECTFULLY SUBMITTED this 4th day of December 2020.

/s/ Jennifer Anderson

_____

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BEFORE THE ARIZONA CORPORATION COMMISSION

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BOB BURNS, CHAIRMAN
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IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR A HEARING TO DETERMINE THE FAIR VALUE OF THE UTILITY PROPERTY OF THE COMPANY FOR RATEMAKING PURPOSES, TO FIX A JUST AND REASONABLE RATE OF RETURN THEREON, AND TO APPROVE RATE SCHEDULES DESIGNED TO DEVELOP SUCH RETURN.	Docket No. E-01345A-19-0236

Surrebuttal Testimony of

Brendon J. Baatz

REDACTED VERSION

on behalf of

Southwest Energy Efficiency Project and Western Resource Advocates

December 4, 2020

Table of Contents

Exhibit List

Exhibit	Description
BJB-S1	APS Response to SWEEP DR 1.9-1.12

I. INTRODUCTION

Q. Please state your name, business address, and current position.

A. My name is Brendon J. Baatz. I am currently employed as a Vice President at Gabel Associates, Inc. ("Gabel Associates"), an energy, environmental, and public utility consulting firm. My primary business address is 417 Denison Street, Highland Park, New Jersey 08904. In my current position, I advise clients on a range of electric and natural gas utility regulatory matters.

Q. Did you previously testify in this proceeding?

A. Yes. I testified on rate design issues on October 9, 2020, on behalf of the Southwest Energy Efficiency Project ("SWEEP") and Western Resource Advocates ("WRA"). Please refer to that testimony for background on my professional experience and education.

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of my surrebuttal testimony is to respond to issues in Arizona Public Service Company's ("APS" or "Company") rebuttal testimony filed on November 6, 2020. Specifically, I will respond to the arguments that APS presented in response to the recommendations I made in my rate design direct testimony. I will also respond to and offer recommendations on the Advanced Energy Mechanism ("AEM"), a new cost recovery rider proposed by APS in its rebuttal testimony.

Q. Please summarize the recommendations in your surrebuttal testimony.

A. The majority of my recommendations mirror the recommendations from my direct rate design testimony.[1] However, there are a few updates and additions that I provide in response to APS's rebuttal testimony. Specifically, I recommend the following:

1. **The Commission should freeze all residential demand rates (R-2 and R-3) to new customer enrollment.** APS has failed to properly educate customers on three-part demand rates. To prevent further harm, Rates R-2 and R-3 should be frozen and should no longer be available for new customer enrollment. APS recognizes this failure and has proposed the elimination of rate R-2 accordingly. However, it has not proposed to eliminate rate R-3. The continuation of R-3 perpetuates customer harm and fails to address the problem of customer misunderstanding and the inability of customers to

[1] Baatz Rate Design Direct available at docket.images.azcc.gov/E000009459.pdf.

respond to demand rates. As such, both R-2 and R-3 should be frozen to new customer enrollment.

2. **The Commission should deny APS's request to increase the Basic Service Charge ("BSC") for residential customers. Instead the BSC should be set at $8.03 for all residential rates.** APS's proposal to increase the BSC is not cost-based, decreases customer control of bills, reduces the customer incentive to engage in energy efficiency and conservation, harms low-income customers who need greater control of bills to avoid defaults and late payments, and does not align with other state policies enacted to promote energy efficiency and conservation. The BSC should be calculated using the Basic Customer Method, which results in a BSC of $8.03 for all residential rates.

3. **The Commission should require APS to shorten the residential Time Of Use ("TOU") on-peak window from five hours to three hours in order to improve customer response to TOU rates and better align TOU rate design with current APS customer consumption patterns and cost of service.** This recommendation would change the residential TOU on-peak hours from 3 p.m. through 8 p.m. to 4 p.m. through 7 p.m.

4. **The Commission should require APS to default all new residential customers to TOU rates.** TOU rates provide significant benefits, including peak demand reductions driven by price signals. APS has a significant number of existing customers on TOU rates. Customers understand TOU rates and respond well to them. Other Arizona utilities, including Tucson Electric Power ("TEP") and UNS Electric, default all new customers to TOU rates with seemingly high customer satisfaction. Finally, customers should retain the ability to move to a flat rate if a TOU rate is not desirable, actionable, or otherwise appropriate for them.

5. **The Commission should order APS to restructure residential electric vehicle ("EV") rates to provide price signals to encourage off-peak charging by adding a nighttime super off-peak period during the summer and winter months.** A super off-peak period at night during the summer and winter months would incentivize EV drivers to charge their vehicles at times when the APS system has excess underutilized capacity. Adequate price signals to incentivize off-peak EV charging is essential for

accommodating increased EV penetrations without an accompanied growth in peak demand.

6. **The Commission should order APS to recover $65 million of energy efficiency program costs in base rates.** As a core resource meeting the real energy needs of customers at lowest cost, energy efficiency must be adequately funded through a stable, fully embedded funding and cost recovery mechanism as part of this rate case. Recovery of energy efficiency program costs in base rates would provide that certainty moving forward.

7. **The Commission should allow APS to book energy efficiency program costs as a regulatory asset, amortize these costs over a seven-year period, and earn a return on these investments.** Energy efficiency investments should be as financially attractive to APS as other utility investments in infrastructure or generation. Amortizing these costs would reduce the rate impacts of energy efficiency programs and align the cost recovery approach with the timing of the benefits that energy efficiency investments deliver.

8. **The Commission should reset the Lost Fixed Cost Recovery mechanism ("LFCR") to zero and reject APS's proposal not to fully reset it.** Resetting the LFCR to zero in every rate case is standard practice for lost revenue recovery mechanisms. Leaving some costs in the adjustor, as APS has proposed, could lead to the over-collection of costs from ratepayers. After all, as part of this rate case, any new approved rates will be based on the Company's test year, which already accounts for the Company's lost revenues. Thus, there should be no additional lost revenues to recover through the LFCR.

9. **The Commission should require APS to conduct an earnings test to document and demonstrate actual lost revenues as a condition of collecting any lost revenues through the LFCR mechanism.** The current LFCR collects the requested lost revenue, regardless of whether or not the Company is already recovering its authorized return. This practice is ripe for over recovery, and APS should be required to conduct and submit an earnings test in order to receive any lost revenues through the LFCR mechanism.

10. **The Commission should commence its generic investigation into Performance Based Ratemaking ("PBR") in order to improve utility performance and customer service outcomes by linking utility financial earnings to the achievement of specific performance metrics and goals.**[2] APS supports this recommendation, which would allow the Commission to tie earnings with customer satisfaction, reliability performance, emission reductions, energy efficiency, and other policy and performance metrics for APS.

11. **The Commission should approve APS's Advanced Energy Mechanism ("AEM") with the conditions and consumer protections recommended herein.** The APS AEM proposal would allow cost recovery for clean energy, just transition, and other investments between rate cases. To provide adequate customer protections, the Commission should tie recovery of costs via the AEM to the results of an earnings test that reviews net plant balances to ensure the Company is not earning more than its authorized revenues. The Commission should also require APS to come back for a rate case every three years and ensure a high standard of review for all new costs proposed in the annual AEM filing. Finally, the Commission should consider linking financial incentives to the Company's performance to reduce emissions, advance energy efficiency, and improve customer service. The financial incentives would be based on the APS return on equity authorized for the clean energy investments recovered via the AEM.

II. RESPONSE TO APS REBUTTAL ON DEMAND CHARGE RATES FOR RESIDENTIAL CUSTOMERS

Q. Please summarize your initial recommendation regarding residential demand rates that was presented in your rate design direct testimony.

A. In my rate design direct testimony, I recommended that all residential demand rates be frozen. Prior to the last rate case, the Company's own market research demonstrated that its customers [redacted][3] The failed implementation of rates as a result of the Company's 2017 rate case, only

[2] *See* Docket No. E-00000A-20-0019.

[3] *See* Baatz Rate Design Direct Exhibit BJB-4 (Highly Confidential) APS Response to SWEEP DR 1.11.

underscores these findings. Therefore, I continue to recommend that the Commission freeze all of the Company's residential demand rate options (R-2 and R-3).

Q. Please summarize the APS response to your recommendation.

A. APS has proposed to redesign its residential rates by eliminating the R-2 option and streamlining its flat rate options. These changes indicate that APS recognizes the failure of its rate plan rollout as a result of its 2017 rate case as well as the significant customer service issues that followed. APS is proposing to maintain the R-3 rate option moving forward.[4] The Company also suggests it will improve customer experience by simplifying customer bills, implementing a new Customer Outreach and Education Program ("COEP"), and continuing to offer the pro forma billing required by the Arizona Corporation Commission ("ACC").

Q. Did other intervenors share your concerns about the R-2 and R-3 rate options?

A. Yes. RUCO witness Radigan recommended freezing the R-2 option to new customer enrollment to reduce customer confusion.[5] Mr. Radigan also asserts that demand rate options have not resulted in a meaningful shift of load by customers.[6] Mr. Radigan suggests that APS's demand rate options have provided no positive results and have only caused confusion and complaints.

Q. Do you support APS's counter recommendation to eliminate R-2 while allowing customers to continue enrolling in R-3?

A. No, I do not. APS is essentially proposing a second bite at the apple to rollout new rates in this proceeding. Following Commission approval of its last rate case, APS failed to properly educate and inform customers about its new rates. The Company not only failed to accurately inform customers of the best potential rate option based on their circumstances, the Company failed at educating customers on how to understand and respond to new rate designs. As we know from the Company's own market research, [redacted]

[4] Hobbick Rebuttal, page 2, lines 9-15.

[5] Radigan Rate Design Direct, page 15, lines 16-19.

[6] Radigan Rate Design Direct, page 15, lines 21-26.

[redacted].[7] It would be unreasonable for APS to continue marketing and offering such a rate, especially if the Company is proposing to spend millions of additional ratepayer dollars to enhance a flawed education and outreach effort.

Q. Please respond to the APS sponsored study reviewing the implementation of its 2017-2018 COEP.

A. APS witness Whiting sponsored a study ("Guidehouse Study") intended to refute key claims in the Alexander Report.[8] The Guidehouse Study focused on comparing the APS 2017-2018 COEP with similar rate reform education efforts implemented in other states including California.[9]

Q. Did the Guidehouse Study evaluate the efficacy of APS's 2017-2018 customer education and outreach efforts related to the implementation of new rates following the Company's last rate case?

A. No. The Guidehouse Study only examined the 2017-2018 COEP itself and not the results of its implementation. The Guidehouse Study did not evaluate customer response or understanding of APS's new rates, which are critical to any successful rate rollout.

Q. Do you find the Guidehouse Study's findings relevant in this proceeding?

A. No. The Guidehouse Study focused exclusively on the content of APS's 2017-2018 COEP. The study did not review APS's performance in implementing the COEP, which is the critical question before the ACC in this case. Following the approval of the last rate case, APS was trusted to develop and properly implement a COEP that communicated the APS rate transition to customers. APS was then trusted to migrate customers to new rate plans during the transition. The Commission found that APS failed to properly communicate important information about the rate transition, which led to customer dissatisfaction with being moved to new rate plans.[10]

Q. Has APS conducted any studies to evaluate customer understanding and response to new rates following the last rate case?

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[7] *See* Baatz Rate Design Direct Exhibit BJB-4 (Highly Confidential) APS Response to SWEEP DR 1.11.

[8] Whiting Rebuttal, Attachment MW-03RB.

[9] Whiting Rebuttal, Attachment MW-03RB, page 6.

[10] Decision No. 77270, Docket No. E-01345A-19-0003.

A. No. According to the Company, APS has not conducted any studies or evaluations on customer response or understanding of rate options since the 2017 rate case.[11] Such a study would have answered questions about customer understanding of and ability to respond to new rates, but would have also provided information on the efficacy of the APS COEP.

Q. Are you aware of recently completed similar studies?

A. Yes. A similar study was recently completed for Public Service Colorado for a residential demand rate pilot.[12] This pilot was the result of a settlement agreement to a 2016 rate case and also included study on TOU rates (without demand charges) for residential customers. The demand rate pilot study included 2,816 customers enrolled on demand rates from March 2017 through July 2019. The study made several significant findings including:

- Nearly half (44%) of customers dropped out of the pilot rate, excluding customers who moved. The primary reason for customers dropping out was bill increases.
- Non-solar customers experienced much higher bills on the demand rate. In year 1 the average annual bill impact was an 11.8% increase, with a 10.3% average annual increase in year 2. The large average bill increases occurred even though the rate was designed to be revenue neutral.
- Non-solar customers produced coincident peak demand reductions, but the reduction declined significantly in year 2. In year 1, the summer demand reduction was 5.4%, but declined to 3.1% in summer year 2.
- Annual consumption increased significantly for customers on the demand rate. In year 1, the average annual consumption increased by 3.2% (269 kWh for an average customer), and 0.9% (65.7 kWh) in year 2. The consumption increases are substantial and exceed most state energy efficiency savings levels on an average basis.
- Customers did report changing patterns of energy usage, but often did not change practices with air conditioning usage, a large driver of demand.

Q. How did the demand rate pilot results compare with the TOU rate pilot results?

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[11] Attachment BJB-S1 - APS Response to SWEEP's First Set of Data Requests, 1.9 through 1.12.

[12] Residential Energy Demand Rate (RD-TDR) Pilot. Final Evaluation Report. Prepared for Public Service Company of Colorado. May 21, 2020. (filed September 21, 2020) Proceeding No. 17M-0204E. dora.state.co.us/pls/efi/EFI.Show_Docket?p_session_id=&p_docket_id=17M-0204E.

A. As I stated above, Public Service Company of Colorado also conducted a TOU pilot at the same time as the demand rate pilot.[13] The TOU rate pilot produced higher summer coincident peak reductions (7.3% in year 1 and 3% in year 2) than the demand rate pilot. The annual consumption change was also much lower on the TOU rate and customer bill savings were significantly lower. Customers on the TOU pilot rate experienced bill savings on average in year 1, reducing annual consumption by 0.2%. Table 1 below summarizes the results of the two studies.

Table 1. Public Service Colorado Rate Design Pilot Results

Rate	Pilot Year	Summer System Coincident Peak Impact	Average Annual Consumption Impact		Average Annual Bill Impact
TOU	Year 1	-7.3%	-0.2%	-17.2 kWh	-1.1%
TOU	Year 2	-3.0%	0.6%	45.8 kWh	2.2%
Demand	Year 1	-5.4%	3.2%	269 kWh	11.8%
Demand	Year 2	-3.1%	0.9%	65.7 kWh	10.3%

Q. What are your conclusions after reviewing the Public Service Company of Colorado's residential demand rate pilot?

A. The findings of the pilot study in Colorado are concerning because the average customer in the demand rate pilot experienced significantly higher bills and increased overall consumption. Higher bills on average, especially on revenue neutral rate options, are concerning as the vast majority of customers enrolled in the pilot to save money. The increases in overall consumption are concerning because increased consumption is antithetical to policy goals of energy conservation and promotion of energy efficiency.

The studies also demonstrated that the TOU rate produced higher peak demand reductions, lower bills, and lower overall consumption than the demand rate pilot. The results in Colorado may not be directly transferrable because of differences in rate design and other factors, but the Colorado studies show significant problems with demand rates for residential customers. The completion of such a study in Arizona on pilot basis prior to

[13] Residential Energy Time-of-Use (RE-TOU) Trial. Final Evaluation Report. Prepared for Public Service Company of Colorado. May 21, 2020. (filed September 21, 2020) Proceeding No. 17M-0204E. dora.state.co.us/pls/efi/EFI.Show_Docket?p_session_id=&p_docket_id=17M-0204E.

rolling out demand rates to a larger customer segment would have provided valuable information to the Commission as it considers rate design, especially in relation to critical policy goals like bill affordability, customer control of bills, and energy conservation.

Q. Do you still recommend the Commission freeze the R-2 and R-3 rate options to new customers?

A. Yes. Following approval of its last rate case, APS migrated a significant number of customers from flat and TOU rates to demand rates. In 2015, APS had 13% of its customers (or ~134,679 customers) enrolled on demand rates. By 2019, over 21% of its residential customers (or ~222,501 customers) were on demand rates. At the same time, the portion of customers on TOU and flat rates declined. APS was moving customers from well understood rate designs (TOU and flat rates) to demand rates, which are not well understood by customers.

Table 2. APS Residential Customer Counts by Rate Type 2015 vs 2019[14]

Rate Type	2015		2019[15]	
	Customers	% of total	Customers	% of total
Demand	134,679	12.9%	222,501	21%
TOU	433,745	41.4%	376,890	34%
Flat	478,347	45.7%	436,377	39%

During this period, APS and the Commission received numerous complaints regarding rate increase notices, customers' lack of understanding of the "modernized" rate designs, and concerns about being placed on demand rates.[16] The volume of customer complaints was so significant that the Commission opened an investigation into the effectiveness of the COEP. The Staff Report on the 2017-2018 COEP (also known as the "Alexander Report") documented deficiencies in APS communications to customers on demand rates, specifically citing shortcomings in customer bill messaging and customer service representatives' knowledge of demand rates. APS customer service representatives

[14] APS Schedule H.

[15] 2019 excludes solar customers.

[16] Decision No. 77270, Docket No. E-01345A-19-0003.

could not properly or accurately describe demand charges.[17] At the same time, APS relied on a flawed bill analysis tool which resulted in overcharging thousands of customers, ultimately requiring APS to issue a public apology and refunds to these customers. Finally, as I noted in my direct testimony, APS also experienced a spike in late payments and defaults for residential customers, which would not have been expected under the economic conditions at the time.[18]

All of these problems occurred while APS was shifting significant customers from TOU and flat rates to demand rates. This pattern indicates that APS has failed to properly educate customers as to how to understand and respond to demand rates. APS market research in 2016 found that [redacted].[19] This research documented significant problems with customer understanding of demand rates that were not corrected. The ACC should freeze these options for new customers to avoid subjecting more APS customers to confusion, higher bills, and other problems associated with a complicated rate design that has not been implemented in a beneficial way by APS.

Q. What would happen to the customers currently enrolled on APS's demand rates if these rates frozen?

A. These customers would have the option to remain on these rate options. However, APS should be directed to conduct outreach and education to these customers to make sure that they are aware of all available rate options, including ones that may be a more appropriate fit for their circumstances.

[17] ACC Utilities Division. An Evaluation of Arizona Public Service's Customer Education Plan and Its Implementation. Memorandum filed in Docket Nos. E-01345A-19-0003 and E-01345A-19-0236, pages 3-31.

[18] Baatz Rate Design Direct, page 11.

[19] *See* Baatz Rate Design Direct Exhibit BJB-4 (Highly Confidential) APS Response to SWEEP DR 1.11.

III. RESPONSE TO APS REBUTTAL ON SWEEP/WRA PROPOSED CHANGES TO RESIDENTIAL TOU RATES

Q. Please summarize your residential TOU rate design recommendations from your rate design direct testimony.

A. In my direct testimony, I recommended several changes to APS's residential TOU rates. These recommendations include:

- defaulting all new residential customers to TOU rates;
- reducing the length of the on-peak period from five hours to three hours;
- changing the timing of the on-peak period from 3 p.m. to 8 p.m. to 4 p.m. to 7 p.m.; and
- adding a nighttime super off-peak period in summer and winter months to encourage managed EV charging.[20]

These recommendations are intended to improve customer response to TOU rates, offer customers greater control over their utility bills, increase enrollment of customers on TOU rates, and incentivize customers with EVs to charge during periods of low system utilization. All of these recommendations are focused on enhancing the customer experience and reducing system costs, which will reduce rates over time. I address the APS response to these recommendations below.

Q. Please summarize the APS response to your recommendation to default all new customers to TOU rates.

A. APS does not support defaulting all new customers to TOU rates.[21] Company witness Hobbick suggests that APS should not have default rates based on her belief that the Company is an entity that customers should trust to steer them towards the best rate plan for them.

Q. Do you agree with Ms. Hobbick's response?

A. No, I do not. The ACC recognizes the value of default TOU rates, which is why both UNS Electric and TEP were ordered in their last rate cases to default all new customers to TOU rates. For UNS Electric, the Commission required a two-part TOU rate to be the default

[20] Baatz Rate Design Direct, pages 13-37.

[21] Hobbick Rebuttal, page 11, lines 4-20.

rate for new customers in August 2016.[22] For TEP, the Commission approved TOU as the default option for residential customers in February 2017.[23] I reject Ms. Hobbick's assertion that APS is a trusted source for customers to choose their most economical rate option. APS has a poor track record of moving customers to their most economical plan. According to the Alexander Report, only 22% of APS customers chose a "best" plan during the rate transition period, and over 400,000 customers were informed in September 2019 that they were not on the most economical plan.[24] Additionally, the ACC found that "customers who were moved by APS onto a rate plan 'most like" their previous rate plan were less likely to be on the most economical rate plan."[25] Further, public comment in this case reflects that many customers do not trust APS. The evidence suggests that APS should not choose plans for customers and instead should default all new customers to TOU-E, while also educating customers about choices and other rate options available.

Q. Please summarize the APS response to your recommendation to shorten the TOU on-peak window from 5 hours to 3 hours and to shift it to 4 p.m. to 7 p.m.

A. APS does not support shortening the on-peak window for the residential TOU-E rate. Company witness Albert presents new analysis showing a forecast of net load and the Palo Verde market price for an average day in July in 2021 to support the APS proposed on-peak window of 3 p.m. to 8 p.m. Mr. Albert further argues that the Commission should consider wholesale market prices in setting TOU rates and solar customer load shapes when setting rates for non-solar customers. I respond to each of these arguments below.

Q. Please respond to Company witness Albert's analysis of the hours for the on-peak window for residential TOU rates.

A. Mr. Albert presents a forecast of net load and wholesale market prices for Pale Verde for an average day in July 2021 to support the continuation of the Company's current TOU on-peak window of 3 p.m. to 8 p.m. Mr. Albert's analysis confirms the analysis I presented in my rate design direct testimony, that the period between 4 p.m. and 7 p.m. are the three highest hours in terms of load. These three hours should be the basis of the TOU-E rate. A

[22] Decision No. 75697, Docket No. E-04204A-15-0142.

[23] Decision No. 75975, Docket No. E-01933A-15-0322.

[24] ACC Utilities Division. An Evaluation of Arizona Public Service's Customer Education Plan and Its Implementation. Memorandum filed in Docket Nos. E-01345A-19-0003 and E-01345A-19-0236, page 4.

[25] Decision No. 77270, Docket No. E-01345A-19-0003, page 7, lines 6-8.

longer TOU window limits customer opportunities to shift load and respond to the rate design. For example, a five hour on-peak window makes it very difficult for a customer to pre-cool a home and maintain a comfortable temperature because the window is so long.

Mr. Albert's analysis also shows that the recommended three-hour period of 4 p.m. to 7 p.m. contains the majority of APS's projected top 90 hours in 2021. The analysis shows that a TOU rate with an on-peak window of 4 p.m. to 7 p.m. will target the majority of top usage hours on APS's system, which will reduce peaks and future costs.

Q. Do you believe wholesale market prices for energy are relevant to the discussion of residential rate design for APS customers?

A. No. Wholesale market prices are irrelevant to the discussion of setting hours for the residential TOU rate. APS is a vertically integrated company that owns and operates its own generation assets. APS is not relying on market purchases, especially in a day ahead context, to serve retail residential load. APS's use of wholesale market prices to establish TOU rates for residential customers should not be allowed by the Commission.

Q. Please summarize the APS response to your recommendation to add a super off-peak period in the evenings during the summer and winter months to encourage off-peak EV charging.

A. APS opposes this recommendation and suggests the off-peak period under the TOU-E and R-3 is sufficient to incentivize EV customers to charge during off peak times.[26] Company witness Hobbick compares the off-peak energy price to an equivalent cost of gasoline in order to suggest that the off-peak price is incentive enough to cause customers to charge vehicles during off-peak hours.

Q. Do you agree with Ms. Hobbick?

A. No, I do not. The equivalent price of gasoline is not the appropriate comparison to make when considering proper rate design to incentivize EV charging. Based on this logic, customers would also have sufficient incentive to charge their vehicles during the R-3 on-peak period because it would still cost them less than $1.00 a gallon, an amount that is far less than current gasoline prices. Instead, the APS residential EV charging approach should focus on incentivizing customers to charge during APS's lowest system utilization hours,

[26] Hobbick Rebuttal, page 39.

which according to the evidence presented by Company witness Albert, is between the hours of 10 p.m. to 6 a.m. in the summer months.[27]

Q. Why do you believe customers need an additional incentive to charge their EVs during nighttime hours?

A. If the Company maintains its current rate structure for EV customers, customers will be insufficiently incentivized to charge their vehicles during off-peak periods. As a result, load growth will increase during high usage hours. This increase in demand during high usage hours will cause the Company to invest in more infrastructure, which will ultimately increase costs for all ratepayers. The potential growth in customer demand from EVs is significant, and it is necessary for APS to institute super off-peak periods to manage EV charging now while the number of EV customers is still relatively low. APS has indicated concerns about shifting hours in rate design options multiple times over a short timeframe. The addition of the super off-peak period now will reduce confusion to customers at a later date.

IV. RESPONSE TO APS REBUTTAL ON SWEEP/WRA BASIC SERVICE CHARGE PROPOSAL

Q. Please summarize the APS response to your recommendation to reduce the BSC.

A. APS opposes this recommendation. Company witness Hobbick argues the SWEEP/WRA recommendation on the BSC would only recover a portion of customer related costs.[28] Company witness Snook also opposes the recommendation to reduce residential BSCs, arguing that the SWEEP/WRA proposal is not cost based.[29]

Q. Please respond to the APS arguments against your recommendation to reduce the BSC.

A. In rebuttal testimony, APS suggests that some portion of distribution plant, including poles, wires, and other distribution system investments, are customer related costs. In direct testimony, Mr. Snook defined cost classification as "the process of determining the factor or factors that drive the magnitude of the cost."[30] Mr. Snook went on to state that "if a cost

[27] Albert Rebuttal, page 22.

[28] Hobbick Rebuttal, page 23, lines 11-24.

[29] Snook Rebuttal, page 31.

[30] Snook Direct, page 9.

is driven by the number of customers taking service on the APS system irrespective of either the kW demand or kWh energy, it is classified as [a] customer [related cost]."[31] Mr. Snook argues in rebuttal testimony that some distribution costs should be considered customer related costs because they are "fixed customer distribution costs."[32]

Q. Do you agree with Mr. Snook's statement on fixed customer distribution costs?

A. No. Mr. Snook is attempting to redefine customer related costs to include costs that are clearly incurred to meet customer demand or energy. Mr. Snook suggests that a transformer that is sized to meet demand for multiple customers is a customer-related cost because "once installed, [transformers] do not vary with the customer's monthly load."[33] By this logic, nearly every cost on the entire utility system could be considered a customer related cost. Mr. Snook is also contradicting prior statements he has made. For example, according to Company witness Snook, "distribution plant is generally designed to meet an individual customer class's peak load."[34] Distribution plant costs are driven by considerations of customer demand and energy consumption, which underscores that they are *not* customer related. Mr. Snook's redefinition of customer-related costs should be rejected by the Commission.

Q. What categories of costs are generally included in a BSC?

A. A BSC should typically only include customer related costs. Customer related costs are generally defined as the "operating and capital costs found to vary with the number of customers regardless, or almost regardless, of power consumption."[35] These costs generally include the meter, service drop, and billing and collection costs. Limiting customer related costs to the meter, service drop, and billing/collection costs is a cost-based approach that ensures each customer is only charged a monthly fee for the costs they directly cause. If costs that are not directly customer related are included and recovered in a BSC, some customers will pay more than the costs they cause while others will pay less.

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[31] Snook Direct, page 9, lines 13-21.

[32] Snook Rebuttal, page 32.

[33] *Id*. lines 12-19.

[34] Snook Direct, page 12, lines 6-8.

[35] Bonbright, James C. 1961. *Principles of Public Utility Rates.* Columbia University Press. page 347.

Q. Are there other negative effects of collecting a large amount of fixed costs in a fixed customer charge?

A. Yes, there are several negative effects of high BSCs. High BSCs reduce customer control of bills, reduce the incentive to engage in energy efficiency behaviors and programs, have a disproportionate effect on low-income customers, and will lead to higher consumption because APS will suppress its volumetric price due to higher revenue collection through its BSC. As explained in my direct rate design testimony, the BSC should be calculated using the Basic Customer Method, which results in a BSC of $8.03 for all residential rates.

V. RESPONSE TO APS REBUTTAL ON ENERGY EFFICIENCY IN BASE RATES

Q. Please restate the SWEEP/WRA recommendation on energy efficiency cost recovery from your rate design direct testimony.

A. I previously recommended that APS recover $65 million in base rates to fund energy efficiency programs. Recovery of energy efficiency costs in base rates provides certainty of funding moving forward and provides transparency regarding presentation of all energy resource costs in a consistent manner to customers. I also recommended that APS capitalize energy efficiency expenses and amortize these costs over a seven-year period. Capitalization and amortizing of energy efficiency expenses reduces the rate impacts to customers and collects costs over the same time frame as benefits from energy efficiency investments are realized.

Q. Please summarize the APS response to the SWEEP/WRA recommendation to collect energy efficiency costs in base rates.

A. APS expressed willingness to increase the amount of energy efficiency costs collected in base rates, but proposed that any addition "be revenue neutral, meaning the increased amount would not exceed the Test Year amount in the DSM adjustor."[36] APS also expressed interest in the SWEEP/WRA proposal to capitalize and amortize energy efficiency expenses, but noted the Company is still analyzing impacts and welcomes feedback from other parties.[37]

[36] Snook Rebuttal, page 16-17, lines 25-3.

[37] *Id.* at page 18, lines 12-15.

Q. What is your position on APS's response to the recommendation to collect $65 million in base rates?

A. The $65 million recommended amount in base rates is less than the Test Year amount collected by APS ($66.6 million). Therefore, the SWEEP/WRA proposal of $65 million would result in a decrease of collected revenues from customers when compared to the Test Year. I interpret the APS response as fully supportive of collecting the $65 million in base rates.

Q. Why is it appropriate to collect $65 million in base rates?

A. On November 13, 2020, the ACC approved a new energy efficiency target for APS moving forward. The new target would require APS to implement a portfolio of demand side resources to achieve capacity reductions equivalent to 35% of APS's 2020 peak demand and annual energy efficiency savings equivalent to 1.3% of its retail sales by 2030.

The SWEEP/WRA proposal to include $65 million in base rates is necessary to achieve this new energy saving target. According to data collected by the American Council for an Energy Efficient Economy ("ACEEE"), the average first year cost to achieve energy savings was $0.25/kWh in 2018.[38] For APS, this would result in a cost of approximately $90 million to save 1.3% of its 2019 retail sales. According to the same study, APS has performed below the national average, so I do not expect APS to reach this level of cost. However, $65 million is a reasonable expectation, given national data on the cost to achieve this level of energy savings.

Also, as I noted in direct rate design testimony, the DSMAC would still exist under this proposal and refund any unspent funds back to customers. Likewise, the DSMAC would still exist to recover additional spending approved by the ACC at a later date.

Q. Please respond to the APS response to the capitalization and amortization of future energy efficiency expenses.

A. APS expressed willingness to implement this recommendation but noted several pros and cons to capitalizing energy efficiency expenses. I agree with Company witness Snook that amortizing costs better aligns the costs of the resource with the timing of the benefits and

[38] Molina, M. and G. Relf. 2018. *Does Efficiency Still Deliver the Biggest Bang for Our Buck? A Review of Cost of Saved Energy for U.S. Electric Utilities.* Presented at the 2019 ACEEE Summer Study in Buildings. aceee.org/files/proceedings/2018/node_modules/pdfjs-dist-viewer-min/build/minified/web/viewer.html?file=../../../../../assets/attachments/0194_0286_000125.pdf.

encourages investments in Demand Side Management ("DSM") resources.[39] I disagree with Mr. Snook's concern that deferring DSM costs creates a unique risk of future cost recovery to the Company. A reasonable assurance of future cost recovery is achieved when the ACC approves the Company's request to spend the funds on DSM programs, just like any other Company investment. I continue to support the recommendation to capitalize and amortize energy efficiency costs moving forward.

VI. RESPONSE TO APS REBUTTAL ON LFCR

Q. Please summarize the APS response to your recommendation to reset the LFCR to zero and implement an earnings test for recovery of LFCR revenues.

A. APS opposes resetting the LFCR to zero because it is challenged with communicating the purpose of the LFCR mechanism to its customers. The Company also opposes implementing an earnings test to subject recovery of requested lost revenues to a review of actual earnings, asserting that an earnings test would defeat the intended purpose of the mechanism.[40]

Q. Please respond to the Company's objection to resetting the LFCR to zero.

A. Company witness Snook suggested APS has no "theoretical" objection to transferring all unrecovered fixed costs to base rates, but argues that explaining this change to customers is difficult.[41] However, the difficulty of explaining the bill impact to customers is an insufficient reason not to reset this mechanism. The test year period of this rate case includes the fixed costs that are also included in the LFCR. Allowing cost recovery to continue on the LFCR while also setting rates based on a test year which includes lost sales from distributed generation and energy efficiency is a scenario ripe for over recovery of costs. To avoid potential over recovery and collection of the same costs in a rider and base rates, the Commission should order the LFCR to be reset to zero in every rate case.

Q. Please respond to the Company's objection to an earnings test on requested lost revenues in the LFCR.

[39] Snook Rebuttal, page 17, lines 12-21.

[40] *Id.* at 13.

[41] *Id.*

A. Company witness Snook argues against an earnings test for the LFCR, asserting that an earnings test would undermine the intent of the mechanism.[42] The intent of the LFCR mechanism is to allow the Company to recover lost revenues from distributed generation and energy efficiency and eliminate the disincentive of the utility to facilitate lost sales. An earnings test would not eliminate the Company's ability to recover lost revenues, but would limit recovery only to allow APS to earn up to its Commission authorized return. The earnings test would prevent over recovery of revenues, which may occur through the LFCR.

I will illustrate the concept with a hypothetical example in which APS has an approved return on equity of $10 million. In this example, the Company has earned $11 million in net income (retail jurisdictional net income) because of hot weather, but is requesting $1 million of lost revenues because of distributed generation and energy efficiency lost sales. In this simplified example, APS would be denied recovery of the $1 million because the Company had already earned its approved return on equity. If the Company's net income had been $9 million because of lower than expected sales, the $1 million in lost revenues would have been approved. The earnings test simply measures the APS retail jurisdictional net income against the approved return on equity to determine if the Company actually experienced lost revenues for the year. The test is a customer protection mechanism against over recovery of approved revenues.

The LFCR does not completely eliminate the Company's incentive to reduce sales. In fact, the mechanism as currently developed gives the Company an incentive to continue to promote higher usage, while also recovering lost revenues from distributed generation and energy efficiency. The mechanism allows the Company an opportunity to recover lost revenues from lost sales from distributed generation and energy efficiency but does nothing to discourage over recovery of revenues through promotion of higher usage. The earnings test avoids this adverse outcome while still providing the Company an opportunity to recover revenues lost because of distributed generation and energy efficiency.

[42] Snook Rebuttal, page 14, lines 2-4.

VII. RESPONSE TO APS PROPOSED ADVANCED ENERGY MECHANISM

Q. Please describe the major components of the Commission's energy rules subject to the formal rule-making process next year.

A. In November 2020, the Commission approved energy rules that include:

- A carbon free electricity standard requiring APS to be 100% emission free by 2050 and reduce its carbon-dioxide emissions by 50% by 2032 and 75% by 2040.
- An energy efficiency standard requiring APS to implement a portfolio of demand side resources to achieve capacity reductions equivalent to 35% of APS's 2020 peak demand and annual energy efficiency savings equivalent to 1.3% of its retail sales by 2030.
- A storage standard requiring investment in energy storage including customer-owned or leased systems. And,
- Improvements to the integrated resource planning ("IRP") process to support greater transparency, stakeholder engagement, competitive solicitations, and favorable siting for clean energy in communities impacted by the retirement of conventional resources.

These rules are now in the formal rulemaking process, which should be completed in 2021.

Q. How do the Commission's energy rules and the Company's clean energy commitment compare?

A. The Commission's recent directive is consistent with APS's clean energy commitment and strengthens it in a number of important ways, for example, by emphasizing:

- Affordability – By instituting an energy efficiency standard and competitive solicitations as part of an improved IRP process, the Commission has made clear that APS must prioritize the acquisition of the lowest cost energy resources as part of its clean energy transition.
- Accountability, transparency, and regulatory certainty – By implementing interim requirements for carbon dioxide-free electricity, instituting new standards for energy storage and energy efficiency, and overhauling the IRP process to require greater stakeholder engagement, information sharing, Commission approval of a utility's load forecast, and competitive solicitations, the Commission has made clear that APS must achieve near-term, sustained progress on its clean energy transition and do so in way that is collaborative, transparent, accountable, and fair.

- Equity and responsibility – By requiring favorable siting for clean energy projects in communities impacted by the retirement of conventional resources, the Commission has made clear that it supports a just and equitable transition.

Q. Did SWEEP and WRA support the Commission's energy rule decision?

A. Yes. SWEEP and WRA were deeply involved in the multi-year process that led to the Commission's decision. For example, both organizations worked closely with a group of more than 30 industry, faith-based, and community groups that offered specific recommendations for the Commission's consideration – many of which the Commission incorporated into its rules. As part of this coalition, SWEEP and WRA also supported the Commission's decision to commence the formal rulemaking process.

Q. Please describe the new APS proposed cost recovery mechanism in this proceeding.

A. In its rebuttal testimony, APS has proposed a new cost recovery mechanism called the Advanced Energy Mechanism ("AEM"). According to Company witness Guldner, the Company is proposing the AEM to mitigate the upfront transition costs associated with its clean energy transition.[43] Absent the AEM or "something equivalent," Guldner states that it would be "very difficult" for the Company to transition to more clean energy due to the frequency of future rate cases and impacts to its credit quality and ratings.

Q. Does this mean that APS rates are guaranteed to continually increase in order to meet its clean energy commitment?

A. No. Under its clean energy commitment, APS will likely make new investments in both fixed assets, as well as new program expenses, both of which will undoubtedly cause the Company to seek cost recovery, either through existing mechanisms or through the new proposed AEM. However, there are also countervailing factors that should limit (or potentially offset) overall customer bill increases, such as reduced rates for fuel and O&M costs as a result of clean energy investments. The precise balance and timing of these new investments and countervailing factors is difficult to determine in advance, but is something that SWEEP/WRA and other stakeholders are committed to monitoring to ensure that new clean energy investments are deployed at the lowest possible cost for customers.

[43] Guldner Rebuttal, page 6, lines 15-25.

Q. What costs would the AEM recover?

A. The proposed rider would recover costs associated with new clean energy investments and the funding of just and equitable transition ("JET") efforts to assist the Navajo Nation, Hopi Tribe, and other communities transition to post-coal economies. The Company also suggested that other adjustors, including the DSM, renewable energy, and LFCR mechanisms, could be included in a modified version of the AEM in future years.[44] According to Company witness Snook, the adjustor would recover "capital carrying costs and expenses associated with APS owned, newly-constructed or acquired plants that are not already recovered in base rates or another adjustor."[45]

Q. Please describe your understanding of how costs recovered in the AEM would be reviewed and approved.

A. APS is proposing that costs recovered in the AEM would be limited to clean energy investments authorized in the Company's most recent Integrated Resource Action Plan or Clean Energy Implementation Plan in accordance with the new IRP process laid out in the Commission's new energy rules. APS is proposing a determination of prudence in the Integrated Resource Action Plan or Clean Energy Implementation Plan for the proposed project or acquisition, but the prudence review of final costs associated with specific investments would be conducted during the AEM review and approval process, not in a rate case.[46] The Company is also proposing to conduct a request for proposals ("RFP") process to competitively secure clean energy investments. While the RFP process would not be subject to ACC overview or approval, it would include significant participation and oversight by stakeholders, and occur only after the Commission has approved the utility's load forecast, the utility has issued an all-source Request for Information to inform the development of its IRP, and the Commission has acted on the utility's IRP.

According to the proposed AEM term sheet, the Company would file the AEM on June 1 annually, with approval by January 1 of the following year.[47] APS is also proposing to conduct stakeholder engagement prior to the June filing.

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[44] Snook Rebuttal, page 15, lines 18-26.

[45] *Id*. at page 16, lines 2-5.

[46] *Id*., attachment LRS-02RB, page 1 of 2.

[47] *Id*., attachment LRS-02RB, page 2 of 2.

Q. Based on your understanding, is APS proposing to roll the demand side management, renewable energy, LFCR, or other adjustor mechanisms into the AEM?

A. It is unclear. The proposed term sheet for the AEM presented by Company witness Snook suggests that the DSM, renewable energy, and LFCR adjustors would be rolled into the AEM, with the approval of the DSM plan and LFCR occurring during the AEM approval process.[48] Other Company witnesses, including Mr. Guldner, suggest the adjustors would not be included in the AEM initially.[49] The Company's revised revenue requirement request only shows an initial $13 million in the AEM, and does not reflect any other adjustor transfers. Therefore, I assume the Company is only proposing the AEM to include costs associated with clean energy investments and JET initially, with a potential transition to incorporate other aforementioned adjustor mechanisms into the AEM over time.

Q. Do you believe the proposed AEM is in the public interest?

A. If the AEM proposal is modified to include the specific conditions I recommend, then I believe it is in the public interest. The AEM will allow APS to begin recovery of costs associated with clean energy investments between rate cases. However, the proposed mechanism and term sheet require additional customer protections to ensure the process and outcome is in the public interest. Specifically, I propose the ACC approve the AEM if it includes the following additions:

1. **Come back provision** – If the AEM is approved, APS should be required to come back in for a rate case every three years. This will allow costs collected in the AEM adjustor to be rolled back into base rates at a regular frequency. The AEM with a comeback provision will enable APS to meet its goals of timely cost recovery, while also ensuring revenue requirements are reevaluated on a regular basis.
2. **Earnings test** – The Company has proposed a general earnings test for the AEM in this proceeding, but the proposal lacks detail. An earnings test will ensure the Company is not recovering earnings in excess of revenues authorized by the Commission, considering changes in net plant year over year. APS cost

[48] *Id.*, attachment LRS-02RB, page 1 of 2.

[49] Guldner Rebuttal, page 6, lines 15-25.

recovery of new plant additions through the AEM should be contingent on the Company making a showing that the recovery is justified given other pro forma adjustments, including plant retirements and depreciation expense from existing plant balances.

3. **Retention of rights to litigate prudence** – APS is requesting that the determination of prudence of costs be found during the AEM filing process. However, the timeline of review is shorter during an adjustor proceeding than a traditional rate case, which is the standard process for prudence determinations in Arizona. For the AEM adjustor to be in the public interest, the process should allow for parties to object to prudence findings, ensuring that the procedural schedule may allow a longer, more protracted period if necessary. Ideally, the Company would address all potential concerns during the IRP, RFP, and stakeholder process meetings, but when this is not possible, parties must be able to engage in a full evidentiary process.

If approved, the three conditions outlined above, in combination with the enhanced IRP process and direct stakeholder participation in the RFP process, would, in my opinion, result in an AEM that is in the public interest.

Q. Please describe why a comeback provision is in the public interest.

A. APS has expressed a commitment to transitioning to a clean energy future. This will likely involve significant investment over the next several years. This shift, in combination with several other trends like increasing transportation electrification, will have significant impacts on the Company's cost of service and billing determinants. Therefore, it will be important for APS to undergo a thorough rate case review on a regular interval to ensure rates are just and reasonable. A rate case will allow adjustments to the Company's existing rate base for plant retirements, changes in operations and maintenance costs, and additions to rate base through new capital investments. Finally, a comeback provision will allow the ACC to regularly review the performance of the AEM to ensure it remains in the public interest.

Q. Please explain why an earnings test is in the public interest.

A. The AEM proposal would recover new plant additions through an adjustor mechanism. However, it is also important to consider cost reductions in the Company's overall revenue

requirement, including reduced plant balances and associated depreciation expense. An earnings test in the context of the AEM should consider these types of adjustments to ensure APS is not overearning through the AEM in between rate cases. APS briefly mentions an earnings test for the AEM but has not yet proposed details about that test.[50] An earnings test in the context of the AEM should consider pro forma adjustments to estimate net income for the period in question. These adjustments should include items such as depreciation expense, plant additions, plant deferrals, changes to inventories, or other actual changes in costs.

Q. Are there adjustments normally made in a rate case context that you do not recommend occur in the context of the AEM earnings test?

A. The earnings test adjustments should not include a weather adjustment. A weather adjustment is not appropriate for the AEM earnings test because adjusting the Company's net income based on weather normalization is not reflective of the Company's actual earnings. If the Company earns excess revenue because of an abnormally hot year, the excess revenues should not be removed from the Company's net income for the purposes of this earnings test because these revenues were recovered from customers by APS. As an example, consider a scenario in which the test year operating revenues were established at $3.5 billion but Company collected $3.7 billion because of weather. This difference should not be removed from the net income calculation in the context of this earnings test because the revenues were actually recovered by the Company.

Q. Please describe why it is important for parties to retain rights to object to prudence during the AEM filing process.

A. This recommendation is intended to ensure all parties retain rights to object to the inclusion of costs associated with a project in the AEM. The AEM schedule is shorter than the traditional process (a general rate case) in which APS seeks a prudence determination to recover costs for new investments. Therefore, it is important to ensure parties have sufficient time to request additional information for clarity and present evidence of why APS's investment should be rejected. While this may never actually happen in practice, it is important to ensure the process is established in a way that allows the time necessary for parties to object.

[50] Snook Rebuttal, attachment LRS-02RB, page 1 of 2.

Q. Are you proposing a specific action for the ACC to consider with the recommendation for parties to retain rights to object to specific costs in the AEM filing?

A. There are several possible solutions to address this concern. APS could consider a longer review schedule, perhaps filing on March 1 instead of June 1. Alternatively, the Company could consider allowing the ACC approval date to be after January 1 if the issues are not yet resolved. Under this alternate option, APS could begin collecting revenues for the proposed filing on January 1 and then refund any portion ultimately disallowed by the ACC (with interest). This would allow timely cost recovery for investments while also allowing a thorough and careful review process for the ACC and intervenors.

Q. What do you conclude?

A. The proposed AEM would allow APS the ability begin cost recovery on net new investments in between rate cases. If the mechanism allows APS to expedite investments to avoid cost recovery lags, it should benefit customers. However, the Commission should approve the customer protection recommendations outlined above to maximize customer benefits of the AEM.

VIII. RESPONSE TO LETTER FROM COMMISSIONER MÁRQUEZ PETERSON

Q. Please respond to the letter filed by Commissioner Márquez Peterson.

A. Commissioner Márquez Peterson filed a letter in this case requesting proposals from APS and intervenors on how to decrease rates for APS.[51] Commissioner Márquez Peterson recognizes the economic benefits that low rates bring to cities and states, as well as the customer benefits of low rates. The recommendations made in this testimony support the goal of lower rates. I explain how each recommendation supports the goal of reduced rates:

1. Energy efficiency cost recovery – allowing stable recovery of energy efficiency costs will improve the stability of the energy efficiency program funding. Energy efficiency is a key tool that allows customers to save money on bills, but these programs also reduce costs for all customers in the short and long term in a number of ways, including reductions in demand.

[51] Letter filed in Docket No. E-01345A-19-0236 on November 17, 2020.

2. Elimination of demand rates for residential customers – As documented in my direct testimony, demand rates reduce customer paybacks for energy efficiency investments, a key driver in bill reductions for customers. The elimination of these rates will grow the number of customers on flat and TOU rates, which will increase customer control of bills.
3. Add a super off-peak period to residential rates – The super off-peak period is intended to incentivize customers to charge EVs during low system utilization hours, which will reduce future peak load growth and the needed investments to meet demand from EV growth in later years.
4. Make TOU the default rate for new residential customers – TOU rates have substantial peak demand reduction benefits, which reduce costs for all customers through avoided investments in new infrastructure to meet higher peak demands. Defaulting all new customers to TOU rates, will increase peak demand reductions and reduce costs over time, which will reduce rates.
5. Implement an earnings test on the LFCR – An earnings test on the LFCR will limit the recovery of lost revenues by APS to only what is allowed in the last rate case. This will limit potential over recovery of revenues, which is a common problem of lost fixed cost mechanisms, and potentially reduce rates for customers over time.

IX. CONCLUSION

Q. Please summarize your recommendations to the Commission in this case.

A. I recommend the following:

1. The Commission should freeze all residential demand rates (R-2 and R-3) to new customer enrollment.
2. The Commission should deny APS's request to increase the BSC for residential. Instead the BSC should be set at $8.03 for all residential rates.
3. The Commission should require APS to shorten the residential TOU on-peak window from five hours to three hours in order to improve customer response to TOU rates and better align TOU rate design with current APS customer consumption patterns and cost of service. This recommendation would change the residential TOU on-peak hours from 3 p.m. through 8 p.m. to 4 p.m. through 7 p.m.

4. The Commission should require APS to default all new residential customers to TOU rates.
5. The Commission should order APS to restructure residential EV rates to provide price signals to encourage off-peak charging by adding a nighttime super off-peak period during the summer and winter months.
6. The Commission should order APS to recover $65 million of energy efficiency program costs in base rates.
7. The Commission should allow APS to book energy efficiency program costs as a regulatory asset, amortize these costs over a seven-year period, and earn a return on these investments.
8. The Commission should reset the LFCR to zero and reject APS's proposal not to fully reset it.
9. The Commission should require APS to conduct an earnings test to document and demonstrate actual lost revenues as a condition of collecting any lost revenues through the LFCR mechanism.
10. The Commission should commence its generic investigation into PBR in order to improve utility performance and customer service outcomes by linking utility financial earnings to the achievement of specific performance metrics and goals.[52]
11. The Commission should approve APS's AEM with the conditions and consumer protections recommended herein.

Q. Does this complete your surrebuttal testimony?

A. Yes.

[52] *See* Docket No. E-00000A-20-0019.

SOUTHWEST ENERGY EFFICIENCY PROJECT'S
FIRST SET OF DATA REQUESTS TO
ARIZONA PUBLIC SERVICE COMPANY REGARDING
THE APPLICATION TO APPROVE RATE SCHEDULES DESIGNED TO
DEVELOP A JUST AND REASONABLE RATE OF RETURN
DOCKET NO. E-01345A-19-0236
FEBRUARY 28, 2020

SWEEP 1.9: Has APS conducted any evaluations or studies on residential customer response to TOU rates, specifically effectiveness in reducing peak demand (both coincident and noncoincident) and reducing overall consumption. If yes, please provide all studies, workpapers, and other supporting documentation used in these studies or evaluations. Please include all studies, evaluations, and analysis from the past five years. If no, please describe why such studies have not yet been performed.

Response: The Company has compiled and assessed the class load data for the new residential time-of-use energy and demand rates. APS will conduct additional research as more data becomes available. Please refer to the Company's response to APS Initial Data Request 1.31. In addition, research was conducted on the prior time-of-use demand rates, which had different on-peak hours and price ratios than the current rates. Please see Attachment ExcelAPS19RC00926.

Witness: Jessica Hobbick

SOUTHWEST ENERGY EFFICIENCY PROJECT'S
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DOCKET NO. E-01345A-19-0236
FEBRUARY 28, 2020

SWEEP 1.10: Has APS conducted any evaluations or studies on residential customer response to demand (three part) rates, specifically effectiveness in reducing peak demand (both coincident and noncoincident) and reducing overall consumption. If yes, please provide all studies, workpapers, and other supporting documentation used in these studies or evaluations. Please include all studies, evaluations, and analysis from the past five years. If no, please describe why such studies have not yet been performed.

Response: Please see the Company's response to SWEEP 1.9.

Witness: Jessica Hobbick

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FEBRUARY 28, 2020

SWEEP 1.11: Has APS conducted any evaluations or studies on the customer satisfaction of the residential demand rates. If yes, please provide all studies, workpapers, and other supporting documentation used in these studies or evaluations. Please include all studies, evaluations, and analysis from the past five years. If no, please describe why such studies have not yet been performed.

Response: The Company has conducted a customer satisfaction study on the prior time-of-use demand rates and focus groups to test the communications strategy for the new rates. Please see Attachments APS19RC00904 and APS19RC00905, which are Highly Confidential and are being provided pursuant to an executed Protective Agreement in this docket.

Witness: TBD

SOUTHWEST ENERGY EFFICIENCY PROJECT'S
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FEBRUARY 28, 2020

SWEEP 1.12: Has APS conducted any evaluations or studies on the customer satisfaction of the residential TOU rates. If yes, please provide all studies, workpapers, and other supporting documentation used in these studies or evaluations. Please include all studies, evaluations, and analysis from the past five years. If no, please describe why such studies have not yet been performed.

Response: Please see APS's response to Sweep 1.11 for residential time-of-use demand rates. The Company has not conducted satisfaction studies on residential time-of-use energy rates in the last five years, in part because the participation has remained very high over this period, and these rates are voluntary.

Witness: Jessica Hobbick